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| 10/786,072      | 02/26/2004  | Yohsuke Ishii        | MEI-101             | 3877             |

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| EXAMINER |
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DARNO, PATRICK A

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2163

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 04/05/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                               |                              |  |
|------------------------------|-------------------------------|------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/786,072 | Applicant(s)<br>ISHII ET AL. |  |
|                              | Examiner<br>Patrick A. Darno  | Art Unit<br>2163             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01/23/2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. No new claims have been added. Claims 1-16 and claims 18-28 have been cancelled.

Claim 17 has been amended. Claim 17 is pending in this office action.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication Number 2004/0254934 issued to Mang-Rong Ho et al. (hereinafter "Ho") in view of U.S. Patent Application Publication Number 2005/0091658 issued to Jude Jacob Kavalam et al. (hereinafter "Kavalam") in view of U.S. Patent Number 5,260,551 issued to Tore Wiik et al. (hereinafter "Wiik") and further in view of U.S. Patent Application Publication Number 2004/0203589 issued to Jiwei R. Wang et al. (hereinafter "Wang").

### **Claim 17:**

The combination of Ho, Kavalam, Wiik, and Wang discloses an access control system in which a plurality of storage devices for storing information resources and access controllers for controlling accesses to the information resources stored in the storage devices are connected with a network, each of the access controllers having an access control list on which access right to each information resources stored in the storage devices is recorded, and each of the access controllers having an access prohibition list on which access prohibited users are recorded who are prohibited from accessing any information resource stored in the storage devices,

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and Ho discloses each access controller comprising:

an access restriction module (*Ho: paragraph [0004], lines 1-9 and paragraph [0009], lines 7-9 and paragraph [0010], lines 7-9; The content management system is the access restriction module.*) configured to restrict access to each information resource stored in a storage device and listed on the access control list of the access controller that records access right to each information resource (*Ho: paragraph [0003], lines 2-9 and paragraphs [0028]-[0031] and paragraph [0078], lines 6-10; Note specifically in the first reference cited "storage of an access control list (ACL) for each data entity to which access is to be controlled." Paragraph [0001], lines 9-11 defines a data entity.*).

Ho does not explicitly disclose:

an access interception module configured to restrict the access by reference to the access prohibition list of the access controller, which records user information of access prohibited users, prior to the access control list;

at least one of the access controllers having the updated access prohibition list further comprising a distribution module configured to send out the user information or updated access prohibition list to the other access controllers in response to the update; and

the other access controllers further comprising a list update module configured to receive the user information or the updated access prohibition list and to update the access prohibition list thereof to include the received user information or updated access prohibition list,

wherein the distribution module of each access controller sends out the user information or the updated prohibition list to a predetermined other one of the access controllers, thereby transmitting the user information or the updated prohibition list from one access controller to another.

Kavalam also discloses an access control module to control access to network resources with the use of access control lists (*Kavalam: Fig. 1, 116 and paragraph [0062], lines 5-8*). Examiner notes that Kavalam does not explicitly disclose the use of an access prohibition list (or black-list) to intercept or restrict user access, but Kavalam does explicitly suggest protecting system resources by strategies such as “lock down”, isolation, and sandboxing of users or systems when either accidental or malicious actions occur that could harm system resources (*Kavalam: paragraph [23], lines 23-28*). In order to “lock down”, isolate, or sandbox a particular user or system, a system administrator would have to have some means to detect that an accidental or malicious act which either has already occurred, is currently occurring, or may occur in the future.

In order to satisfy the suggestion of combining additional methods of protecting system resources with the use of an access control module using access control lists, examiner asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Ho, as suggested by Kavalam with the teachings of Wiik noted below (*Note that Kavalam is not being used as prior art for any particular claim limitation. Kavalam is cited for the sole purpose of providing a suggestion to combine Ho and Wiik.*).

Wiik explicitly discloses:

an access interception module configured to restrict the access by reference to the access prohibition list of the access controller, which records user information of access prohibited users (*Wiik: column 5, lines 7-9; The black-list is the access prohibited user list. The black-list is stored in the RAM of a locking mechanism (access interception module), which intercepts the access of a user listed on the black-list. Note that a user obtaining the key could have access and be on the way to unlock the locking mechanism (or access*

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*interception module). Then after the key is issued, the administrator could choose to add the user's name to the black-list. This immediately cancels the user's action rights and effectively 'intercepts' the access of the user.);*

*at least one of the access controllers having the updated access prohibition list further comprising a distribution module configured to send out the user information or updated access prohibition list to the other access controllers in response to the update (Wiik: column 5, 7-11 and column 5, lines 56-63 and column 4, lines 32-38; The "lock communicator" (or admin access controller) oversees each individual locking mechanism (or access interception module or access controller). Since the lock communicator controls the access controller (locking mechanism), the lock communicator itself is also an access controller. From the cited references it can be seen that the lock communicator (access controller) downloads (updates) new user information (user ID) to the black-list. The transfer of this information from the lock communicator to the locking mechanism must be done through a distribution module. Note specifically that the claim language recites 'AT LEAST ONE...' The Examiner has interpreted the claim such that only one access controller comprises a distribution module.); and*

*the other access controllers further comprising a list update module configured to receive the user information or the updated access prohibition list and to update the access prohibition list thereof to include the received user information or updated access prohibition list (Wiik: column 5, lines 9-11; The black-list is updated by the lock communicator (or admin access controller) according to user ID's. Note that the update to the black list is received at the access controller (locking mechanism). There must be some form of receiving module to receive the update. Further note that the update to the black-list can be an addition ("lock communicator is used to fill the list with black listed ID's") or deletions ("lock communicator also has an un-black-list function").).*

*wherein the distribution module of each access controller sends out the user information or the updated prohibition list to a predetermined other one of the access controllers, thereby*

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transmitting the user information or the updated prohibition list from one access controller to another (Wiik: column 4, lines 35-38 and column 5, lines 7-11; Note the lock communicator (admin access controller) sends out newly added user ID's to the black-list (prohibited list) which is stored in the RAM of individual access controllers (locking mechanisms). This updates the black-list. Further note that lock communicator (admin access controller) is used to configure all locking mechanisms (access controllers) (Wiik: column 5, lines 56-59). Since it is assumed that only one access controller has a distribution module (see Examiner's comments above), this limitation is not given patentable weight because it refers to something that essentially can't occur. Since only one access controller has a distribution module, additional access controllers cannot keep transferring the prohibition lists. Due to this interpretation, the cited combination of references still discloses all limitations of the Applicant's claimed invention.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a black-list, or prohibited user list, as part of an access controller (Wiik: column 5, lines 7-11). The skilled artisan would have been motivated to improve the invention of Ho per the above such that upon making a decision to cancel a given individual's access rights, the individual could be added to a black-list resulting in the immediate loss of access to a given resource (Wiik: column 5, lines 7-11 and column 8, lines 11-14).

The combination of Ho, Kavalam, and Wiik does not explicitly disclose restricting access by first referencing a prohibited list **prior to** the access control list.

However, Wang discloses restricting access by first referencing a prohibited list **prior to** the access control list (Wang: paragraph [0033] lines 1-3; The black-list is the prohibited list and the while-list is the access allowed list.).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the previously mentioned combination with the teachings of Wang noted above for the purpose of modifying the order in which the lists are accessed. The skilled artisan would have been motivated to further improve the previously mentioned combination per the above such that the system is capable of checking a black list of access rights prior to checking an access rights allowed list (*Wang: paragraph [0033], lines 1-3*). Checking the smaller black list first can result in saving processing time because the system may not have to search the larger white list.

### ***Response to Arguments***

#### **Applicant Argues:**

In sum, the Applicants argued that the person of ordinary skill would not find motivation or advantage in combining Kavalam and Ho or in combining Wiik with Kavalam, and that no one of these references suggests to look at the BL first, and then to the ACL, as required by the present claim. In other words, while the invention provides the advantage of faster and shorten security clearance (or prohibition), none of the applied references provides the advantage, and in fact, any combination of references would simply provide redundancies in access and/or prohibition.

#### **Examiner Responds:**

Examiner is not persuaded. The only thing remotely redundant about the references is that all the references deal with the topic of access control. The Ho reference specifically deals with access control lists which control who can access things. The Wiik reference deals with black lists which control who cannot access things. And the Kavalam reference simply provides the suggestion that a computer system should have a means for 'locking down' a work station when malicious



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activities is detected. Therefore, one of ordinary skill in the art would look to modify the Ho reference with the teachings of Wiik in light of the suggestion of Kavalam.

The Wang reference is added to the previously mentioned combination solely to disclose the feature of checking a black-list (prohibited list) before checking a white-list (access allowed list). The Examiner believes that this feature would have been obvious to one of ordinary skill in the art at the time the invention was made. The rejection given under 35 U.S.C. 103(a) is upheld.

**Applicant Argues:**

In addition, claim 17 requires that the distribution module of each access controller send out the user information or the updated prohibition list to a predetermined other one of the access controllers, thereby transmitting the user information or the updated prohibition list from one access controller to another. During the telephone interview, the Applicants argued that this chaining of transmitting user information or an updated prohibition list from one access controller to another is not taught by Wiik, which at most suggest a broadcast update of a BL. The Examiner indicated that he would reconsider this rejection in light of the arguments upon the filing of a Reply.

**Examiner Responds:**

Examiner is not persuaded. The Examiner did look at the claims in light of the arguments raised by the Applicant in the telephone interview. However, the Examiner still believes the cited combination of references discloses all the elements of the Applicant's invention as claimed.

As noted above, claim 17 recites "at least one of the access controllers...further comprising a distribution module..." The Examiner decided to give this limitation its broadest reasonable interpretation and assume that only one access controller has a distribution module. If this is the case, the last limitation of the claim, which recites "wherein the distribution module

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of each access controller..." is not valid because it has already been assumed that only one access controller has a distribution module and that access controller is the main access controller (lock communicator). The remaining access controllers are not capable of transmitting the prohibition list because they do not have a distribution module, since only one access controller has a distribution module. These remaining access controllers can only receive the prohibition list.

The preceding office action shows that all the limitations of the claimed invention are clearly disclosed by the cited combination of references when the claims are interpreted in the manner described immediately above. Therefore, the rejection given under 35 U.S.C. 103(a) is upheld.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick A. Darno whose telephone number is (571) 272-0788. The examiner can normally be reached on Monday - Friday, 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

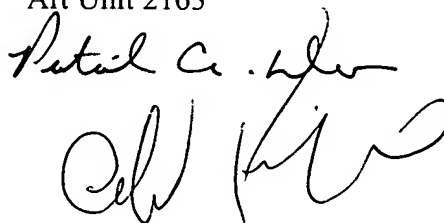
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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PD

Patrick A. Darno  
Examiner  
Art Unit 2163

A handwritten signature in black ink, appearing to read "Patrick A. Darno", written over the printed name and title.

ALFORD KINDRED  
PRIMARY EXAMINER